



WELCOME

Welcome to City Designer 3. From winding slum back alleys to the streets of glorious fortress cities, street maps are a staple of roleplaying games and CD3 gives you all the tools you need to create them. Specialized commands let you customize your buildings, draw whole streets with a few clicks and create floorplans from a house layout in an eye blink.

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License Agreement

Use of this software is determined by a license agreement you can view on the CD.

Technical Support

Support is available from the registered users area of the ProFantasy website profantasy.com

Credits

CD3: Simon Rogers, Mark Fulford

PNG Symbols: Ed Bouelle, Sean McDonald

Vector Symbols: Simon Rogers, Tito Leati

Programming: Peter Olsson

Additional Symbol Work: Ralf Schemmann

Trade Dress: Peter Gifford

Thanks To: Mike Riddle, Beta Testers, CC Mail List, The Colonel and Nigel

The Essentials: Ralf Schemmann, Simon Rogers

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Introduction

CD3 is an add-on for CC3 that lets you create street maps of settlements from small villages to large cities.

- You can create individual buildings with the House drawing tool or add them from a large number of pre-drawn symbol catalogs.
- With the Street drawing tool you can draw randomized bits of a city quickly and easily.
- Custom drawing tools are available to draw the layout of your city, including rivers, streets, etc.
- Automated shading colors all the building roofs according to a global sun direction you set.
- The Floorplan command automatically creates matching floorplans for a specified building.

Using this Manual

The Essentials gives you enough to get you started, without overwhelming you with details. It combines an overview of all the features with a **tutorial**. We assume that you have read at least the CC3 The Essentials, too.


Items underlined in **bold text** are referring you to the side bar for definitions and additional information.

Buttons, dialog box items and menu items are shown in bold text like this: **House** .

Tutorial

Finished examples of the tutorials are found in the Tutorials\Cities folder under CC3.

Can't see the DD3 toolbar?

This is usually found on the left of the DD3 screen. If you can't see it, select **Tools**  and ensure that **Left toolbar 1** and **2** are ticked.

Getting to CD3

You can swap from CC3 or any add-on to CD3 by clicking the CD3 button on CC3's File toolbar.



The CD3 Toolbar

The CD3 **toolbar** includes almost all the features you need to create your maps.

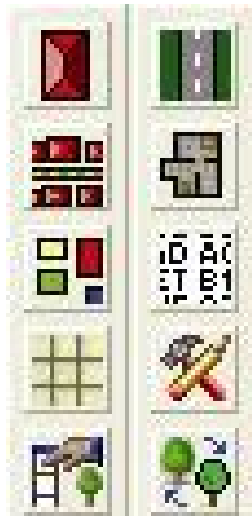
House

Random Street

Color Layers

Grid

City Symbol
Settings




Default Road

Floorplan

Create Index

All City Drawing
Tools
Toggle Symbol
Style

Left click on a button to choose the most commonly used option, right click on a button to see a context menu of other tools. For example, right click on **House**  to see a menu with all house types to bypass the dialog box and an option to access the house settings.



The CD3 Symbol Toolbar

The buttons on the Symbol Toolbar let you load CD3's symbols into the catalog window. Click on a button to open the matching symbol catalog from the current symbol style and settings, or select from the list of catalogs, which match the selection criteria.

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City Templates

The New Drawing Wizard lets you decide on the style and size of any floorplan you create. Select Decide Settings Myself.

- For highly detailed art and rich colors, choose one of the CD3 Bitmap styles.
- For simpler vector symbols choose the CD3 vector style.

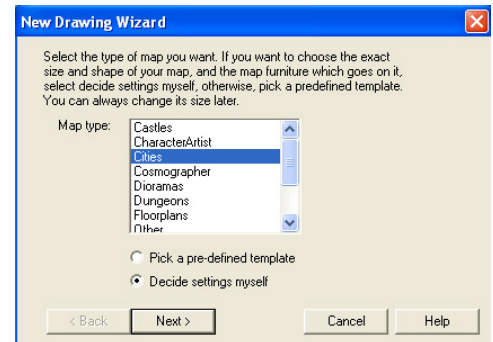
Your First Street Map

This exercise will show you how to start a new map and create a basic floorplan in under 10 minutes.

1. Click **New** .

You can see the New Drawing Wizard.

2. Select Cities and click **Pick a pre-defined Template.**



3. Choose CD3A 500'x400' Village.FCT

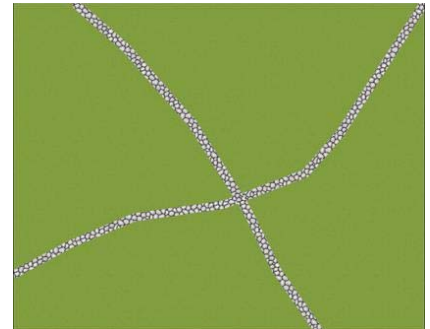
This template is designed to comfortably fit a small village, and for easy printing on an A4 or US Letter sheet.

4. Click **CD3**  on the **File** toolbar to see the **CD3** and **CD3 Symbol** toolbars.

Roads


Your blank template is ready to be filled with roads and Houses. Click **Default Road** .

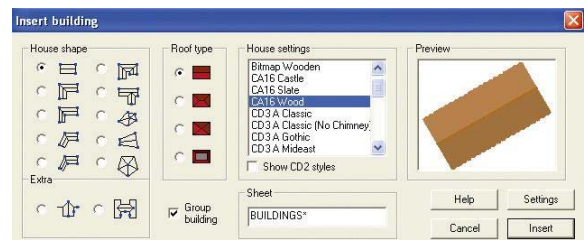
5. Draw two roads across the map, so that they form a crossroad in the middle.



Houses

Time to add some buildings to the map.

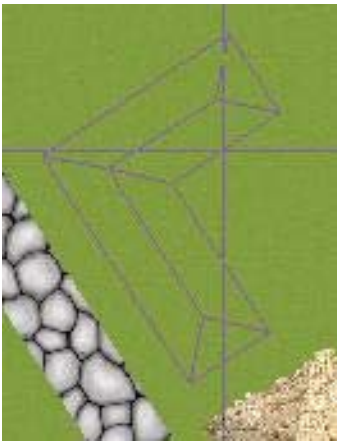
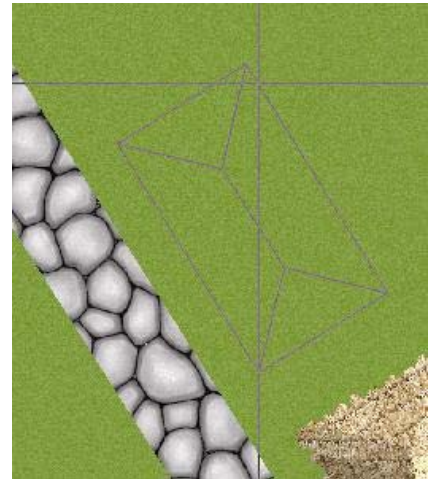
6. Click the **House**  button.




The House dialog appears. Select the house setting CD3A Thatch, leave all other options as they are and click Insert.


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7. Because we have opted to draw a rectangular house, **House** expects placement of three corners of the building. Draw one face of the building first, and then watch the cursor display an outline of the house as you are placing the third point. Use this to gauge the size and location of your finished building. Hitting ESC or right-clicking cancels the current house in mid-command.




Differently Shaped Houses

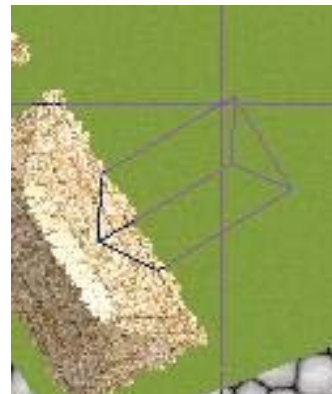
8. Right click **House** . Select the **House Regular L** option.
9. Click three corners of a new house as before, then a fourth point to define the L-shape. Again the cursor displays an outline of the finished building.

There are a large variety of different house shapes available. Choose a shape in the House dialog or selection from the right-click menu of the House button . Different shapes will require slightly different points to click. Keep an eye on the command line to see what the command expects next.

House Extensions

10. Right-click **House** . Select the **Extension** option.
11. Click a point within the house you want to extend, then a point on the edge the extension starts from.

Next define the length of the



Changing House Shape


You can change the shape the House command is going to draw in mid-command.

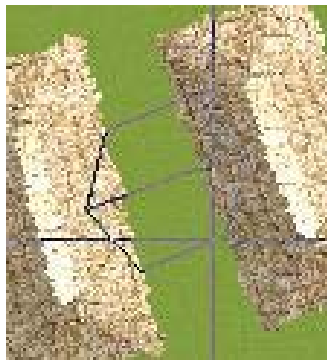
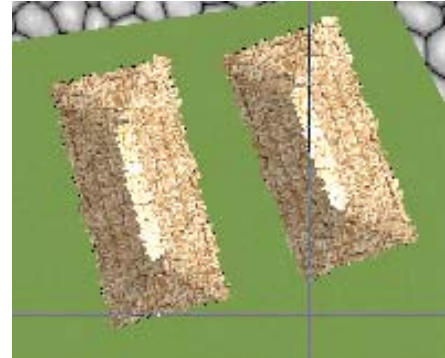
After finishing a house, simply hit the Tab key to cycle through available house shapes. The currently selected one will be displayed in the command line at the bottom of the screen.

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extension – you can hold down the SHIFT key while doing this to slide the extension along the edge you selected. Finally click a point to set the width of the extension. Throughout the command the dynamic cursor will show you what you're doing.

House Connections

12. Draw two houses roughly parallel and fairly close to each other.
13. Right-click **House**  . Select the **Connection** option.



14. Click a point within the first house, then the edge where the connection starts, then a point within the second house. The final point defines the width of the connection. Again, the dynamic cursor will show you a preview outline.

Multiple Catalogs

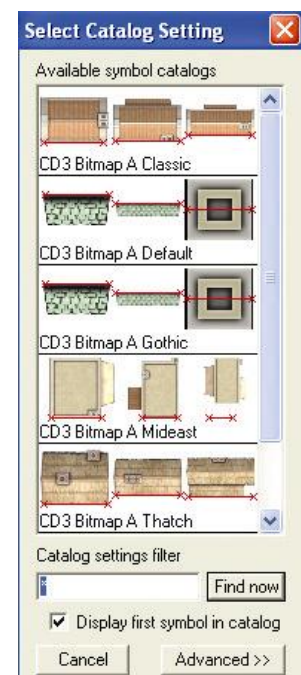
Depending on the current drawing style, a button on the Symbol Toolbar will have several catalogs attached.

If that is the case, the options will be displayed in a selection dialog for you to choose from.

You have only scratched the power of the **House** command, but we will leave it at this for the moment. Look for more on the House command in the next chapters.

House Symbols

The other symbol method of adding buildings to a map is using the symbol catalogs. CD3 offers a wide variety for each style, accessible through the Symbols Toolbar.

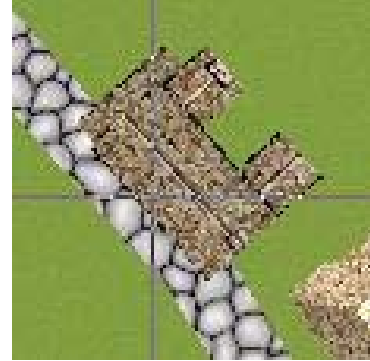


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15. Click the Thatch  button on the Symbol Toolbar.

The **Bitmap A Thatched** symbol catalog loads in the catalog window.

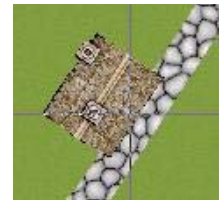
CD3 makes use of *smart symbols*. Smart symbols align to roads and then offset from them, making sure that your houses are placed accurately without much effort.



16. Click on one of the displayed symbols and move the cursor over the map. Notice that whenever the symbol crosses a road it **aligns** to it.
17. Choose a road and hover the building over it. As you move the cursor slightly over to the other side of the road, the building flips to that side of the road.
18. Click to establish the position of the building along the road. The prompt reads `Offset from place point (0") :`. As you move the cursor, the building now moves perpendicular to the road on a cursor.
19. Click a point, type in a distance value or right-click to accept the default distance.
20. Click another symbol. Select a point on the road again. Right-click. The symbol is placed an identical distance from the road.

Aligns

The dynamic cursor shows which side of the road the building will be on when you click.



Cursor on north side of the road



Cursor on south side of the road

Adding symbols without Automatic Aligning

As an alternative to automatically aligning symbols, you can align them manually, then place them by eye. You might want to do this if you are working with a very large map – smart symbols work slowly with large maps.

Disable smart symbols and the smart symbol cursor by clicking a symbol in the catalog window, right-clicking,

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and then setting the options as shown on the right.


- ☐ Smart tracking
- ☒ Disable smart symbols

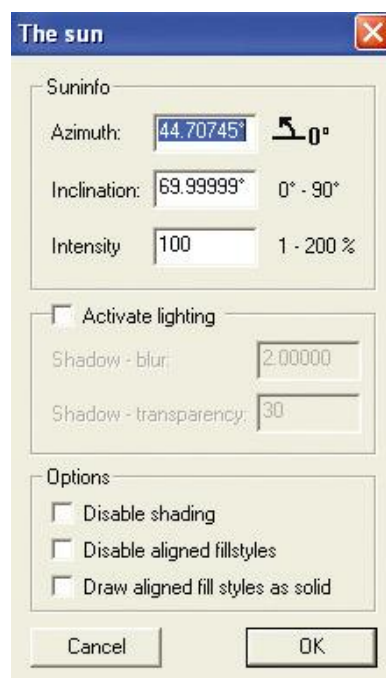
Default Effects and the Global Sun

You might have noticed that no matter where you draw buildings with the House command or place buildings symbols, the shadows on the roofs always align the same way. This and other shadow settings are controlled through the **Global Sun** option.

21. Right-click the **Sheets and Effects**  button and select **Effects On**.

You will see that the buildings now cast a shadow in the same direction as the shadow on the roofs.

22. Right-click the **Display Speed Setting**  button and choose **Global Sun**.



The **Sun** dialog appears.

The **Azimuth** setting defines the sun's direction on the horizon. 0° is due east, 90° is north, 180° is west and 270° is due south.

Inclination is how high the sun is in the sky, with 0° right on the horizon and 90° directly overhead. Changing this setting affects the strength of the shadows cast.

Intensity is a measure of the effect's strength ranging from 0 to 200%.

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We will ignore the other settings at this point, as they don't play a role for our basic map.

23. Change the **Azimuth** setting to 200° and click **Ok**.

You will see how the shadows move around to the other side of the buildings.

At this point you have the basic elements of a village or town map together. You could add a scale bar, some text, perhaps a grid and would have a functional street map.




But you will certainly want to add more features to the map. We will look at the options you have in the following chapters.

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Drawing Tools

Drawing tools can be easily edited and new ones can be created through the **Advanced** version of the drawing tool dialog.

Click **All Drawing Tools**  and then the **Advanced** button. From there you can **Edit** the properties of existing tools, create **New** ones, and **Delete** ones you don't need anymore.

Drawing Style


Each map has a specific drawing style that defines which drawing tools fill styles and symbol catalogs are directly available for it.

CD3 comes with two bitmap-based drawing styles and one vector-based style.

You can change a map's style in the **Drawing Properties** dialog available from the **File** menu.


City Drawing Tools

We have used the Default Road drawing tool to add the first two roads to our existing map. CD3 uses **drawing tools** for a large variety of other features on the map: different roads, civic spaces, fields, water, etc.

You can click on the **All Drawing Tools**  button to see all drawing tools for the current map's **drawing style** (*CD3 Bitmap A* for this example).

All drawing tools are set up in such a way that the entities they create automatically go on the correct sheets and layers.

Let's add some additional features to our map.

1. Use the **Road, Dirt 5'** tool to add some unpaved paths and side roads to the village.
2. Use the **Send to Back**  command to send them behind the already drawn paved roads.



You can use the **Road, Square*** drawing tools to create public spaces such as a market place or assembly field.

3. Use the **Water** drawing tools to add a stream or two and perhaps a village pool to the map.
4. Use the **Terrain, Fields** drawing



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tool to add some fields around the edge of the village and the **City Tree** tool to draw some foliage.

5. The drawing tools **City Wall Dike 10'** and **City Wall Palisade 5'** can be used to surround the village with a simple fortification.

6. Use the **City Hedge** drawing tools to surround a few pastures for the village's livestock.

Turn on the **Sheet Effects**  to see your work so far in its full glory.



Tree Drawing Tool

The City Tree drawing tool is special in that it is set up as a fractalized circle.

The first time you use it, define a radius for the tree you're going to place. Afterwards each click on the map will place a randomized tree shape with that radius.

This is a very convenient and quick way to add trees to a map.



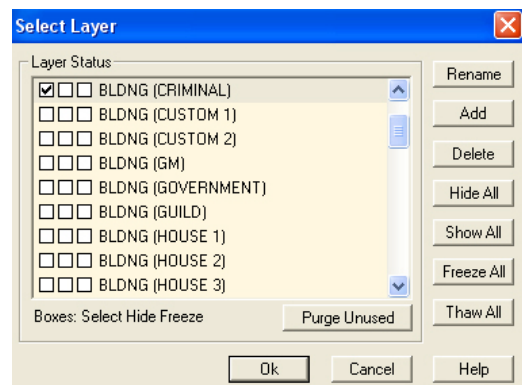
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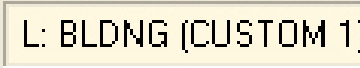
Adding Buildings

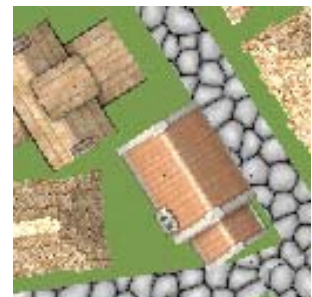
We have already taken a good look at adding houses to a map in the first chapter, but there are many more options and considerations, which this chapter will discuss.

BLDNG Layers

One thing we've given no attention so far is on what layers we put buildings. By default CD3 will put most house symbols on BLDG (CUSTOM 1) and that's fine. But if you want to use some of CD3's color-coding functions (see Chapter "Adding Information") later, buildings need to be sorted on layers according to their function. The BLDNG layers in the city templates are meant to serve for this.



1. **Erase**  one of the buildings in the middle of the village at the crossroads.
2. Click the **Classic/Mediterranean**  catalog setting until the Classic symbol catalog loads.
3. Click the layer indicator and set the current layer to BLDNG (RELIGIOUS). 
4. Place a symbol from the Classic catalog to represent a small temple in place of the erased building (CD3A Classic 4 is a suitable symbol).




Remember that you can turn off auto-aligning by right-clicking while placing a symbol if you to control exact symbol rotation manually.

Symbol Rotation

Remember, you can use the arrow keys to align your symbols north, south, east and west, or press **CTRL** and **SHIFT** to rotate buildings before adding them to the map.

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Changing House Layers

You can change a building's layer after placing it, but since buildings are usually made up by a number of entities **grouped** into a whole, a simple **Change Layer** or **Change Properties**  command won't do the trick.

CD3 has its own command for that, called **Change House Layer** found on the **City** menu.





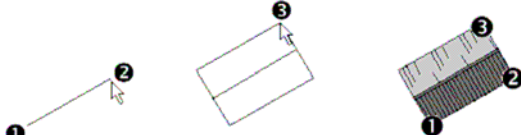

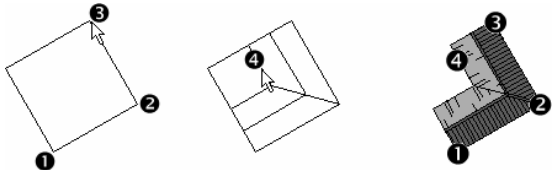

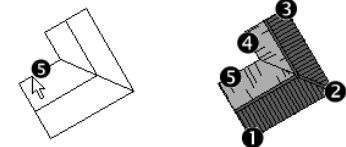
Groups

Entities grouped together via the Group command behave like one single entity in many ways. They can be moved together, scaled, erased, etc. as if they were a single object.


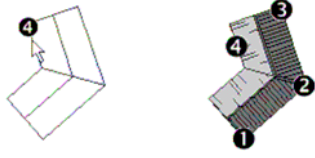

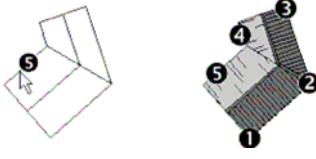

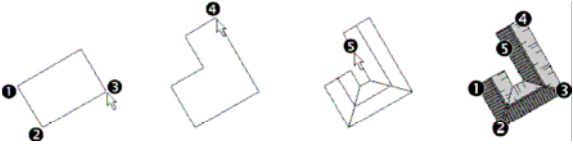

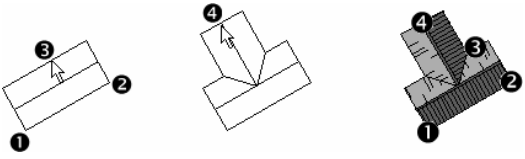

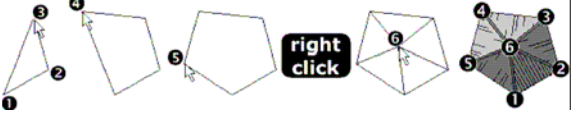

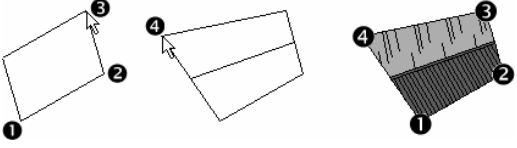

5. Use Change House Layer on a large building near the crossroads to move it to the BLDNG (INN) layer.

House Shapes

This section gives a more detailed overview of what house shapes are available with the **House**  command and how they are drawn.

House Shape	Clicks	Notes
 House Shape 1 (Rectangular)		This simple shape is the basis for most houses.
 House Shape 2 (Regular L)		This produces L-shaped houses with the same width for both sections.
 House Shape 3 (Irregular L)		This produces L-shaped houses with the option of a different width for each section.


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 House Shape 4 (Regular V)		<p>This produces V-shaped houses with the same width for both sections. You draw it just like a Regular L, except the angle isn't locked to 90°.</p>
 House Shape 5 (Irregular V)		<p>This produces V-shaped houses with the option of a different width for each section.</p>
 House Shape 6 (Irregular U)		<p>This produces U-shaped houses.</p>
 House Shape 7 (Irregular T)		<p>This produces T-shaped houses. The first two points describe the length of the T's cross-bar, the third determines the width of the roof, and the last point the position of the upright.</p>
 House Shape 8 (Many-sided)		<p>This produces polygonal houses with as many sides as you like. It is particularly useful for orc huts and other buildings of very irregular shape.</p>
 House Shape 9 (Four-sided)		<p>This produces irregular four-sided houses with no restraints.</p>
 House Shape 10 (Regular Polygon)		<p>This produces houses based on regular polygons with as many sides as you wish. It is particularly useful for round or nearly-round buildings.</p>

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Roof Types

There are four different **roof types** available in the **House**  dialog to control the appearance of the roof inside the building's boundaries.

Roof Type 1 (Gabled)

The first type creates houses with a sloping roof, which has gables. A gable is a triangular bit of wall face at the end of the roof. This roof type affects all house shapes apart from the many-sided and regular polygon roofs.

Roof Type 2 (Hip Roof)

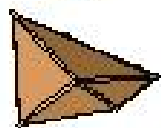
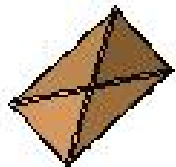
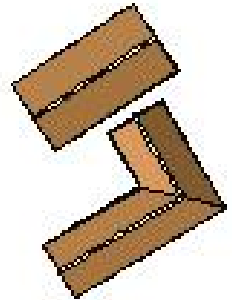
A hip roof is one that slopes up from a wall on all sides, rather than having a gable. The angle of the hip is determined by the current **Roof Options** for this type on the **House Settings** dialog box.

Roof Type 3 (Central Point)

This type only affects the basic house shape (shape 1) and the four-sided irregular house type (shape 9). It creates a roof that slopes up from four sides to a central point. Other house shapes give a Hip Roof instead, except for many-sided and regular polygon houses, which will always have a Central Point roof.

Roof Type 4 (Flat Roof)


This creates a house with a hip roof sloping up to a flat area. It works with all house shapes. The color of the roof is controlled by the **Flat Roof Color** of the current house setting. The distance between the edge of the roof and the flat area is controlled by the **Roof Options** for this type in the current house settings. This can be used to create Arabic-style buildings, skyscrapers and houses with roof-gardens.



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Matching the Roof Type of Symbols

When you add houses to a drawing, you usually want to match them to the symbols from the catalog. The **House** dialog box contains pre-defined house settings to help you match the symbols' appearance. However, you should also check that you are matching the roof type as well. For example, the **Classic** catalog from the **Bitmap A** style uses gabled roofs, so you should set the roof type to **Gabled** (roof type 1) before inserting the houses.

6. Click the **House**  button.
7. Select a **U-shaped** house type, the first (**gabled**) roof type and the house setting **CD3 A Classic**. Click **Ok**.



8. Draw the building somewhere along a road outside the village to show a villa or well-to-do farmhouse.



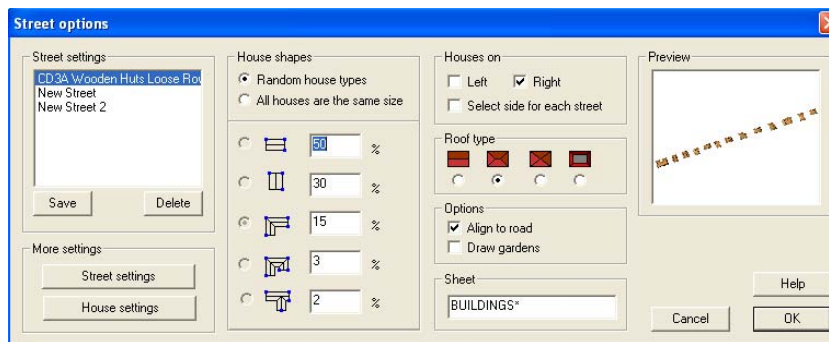
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Adding Random Streets

The command **Random Street** adds a row of buildings to your city. These can be placed in a straight line or along straight or curved roads. You can control the appearance of the street. Once you've made the street you can add, remove and edit houses as normal.

To Add a Random Street

1. Right-click **Random Street** .



Select the setting **CD3A Wooden Huts Loose Row**. Click **Ok**.

2. Left-click **Random Street** .

The prompt reads **First end of street:** and you can see a pick cursor.

3. Zoom to a road that has room for a few huts along one side. Click the center of the road.
4. Either right-click to start the street near the endpoint of the entity you selected or else click the road where you want the street to start.

The prompt reads **Second end of street:**.

5. Move the mouse up and down the street, noticing each time you get a slightly different



Control the Appearance

Right-click the **Random Street**  button to access the command's settings.

You can define and save new settings and re-load old ones. Note that some settings may produce impossible houses in your street.

Center of the Road

If you do not click a road, you will be able to add a street in a straight line, not along a road – just click two points for the start and the end of the street.

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selection of building types.

6. When you are happy with the layout click to select an endpoint.
The prompt reads `First end of street:` again.

Using Random Street Options

The **street options dialog** has a large number of options and ways to customize your streets.



House Settings

The House Settings define how the House command draws a building.

Because they are so integral to the way many of CD3's commands work, they get their own chapter, starting on page 29.

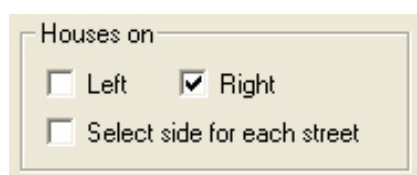
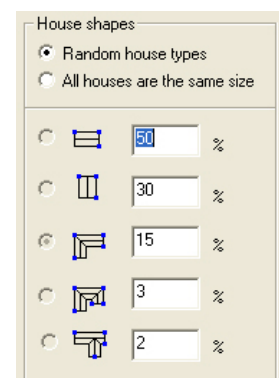


Street settings list the pre-saved settings. Simply click one in the list to select it. The **Save** button lets you save your own customized settings and **Delete** removes unwanted settings from the list.

Under **More settings** you can access the current **House settings** – useful if your random street uses the current house

settings. **Street settings** lets you access even more detailed options for your street, like the size of buildings and their position in relation to the street.

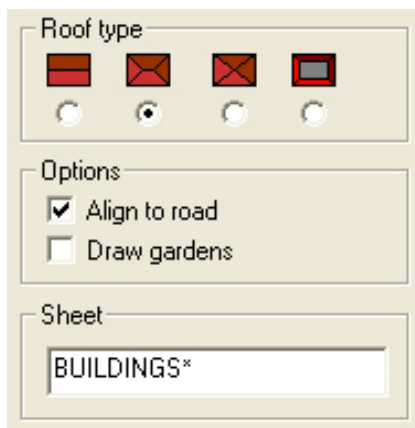
House shapes lets you define the chance a given house on the street will have a certain shape – or you can set them all to be the same.



Houses on defines on which side of the road the houses will appear, left, right or on both. Checking **Select**

side for each street will let you choose one side when executing the command.

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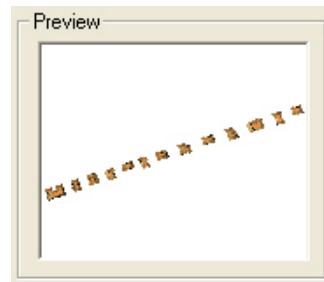
The dialog box has three sections. The top section, 'Roof type', contains four icons representing different roof styles: a red rectangle, a red rectangle with a black cross, a red rectangle with a black cross and a black dot, and a red rectangle with a black cross and a black dot. Below these are four radio buttons. The middle section, 'Options', contains two checkboxes: 'Align to road' (checked) and 'Draw gardens' (unchecked). The bottom section, 'Sheet', contains a text box with the text 'BUILDINGS*'.

Roof Type selects how the houses' roofs will appear.

Options lets you define whether the houses will align along the road and whether CD3 will draw an outline of a garden around each house.

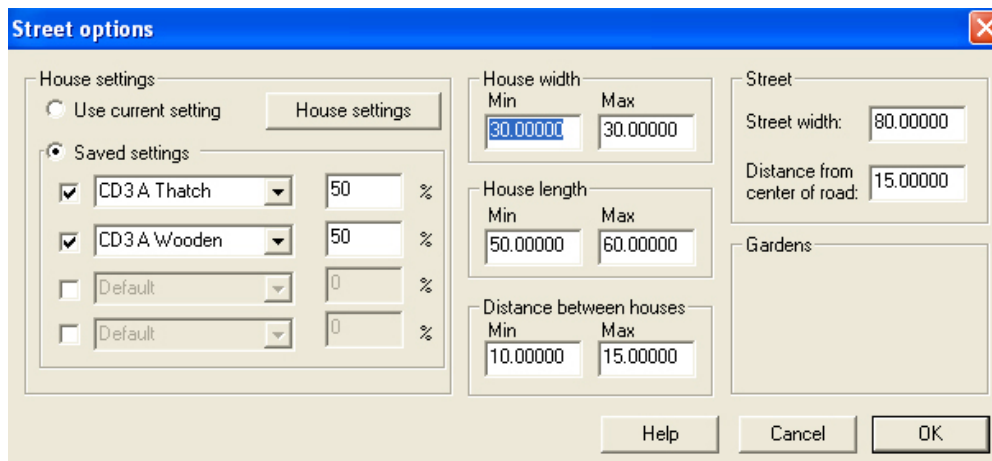
Finally

Sheet defines on which sheet the random street command will place the buildings. And the Preview gives you an impression how the completed street might look.



More Random Street Options

If you click the **Street settings** button under **More Settings**, another dialog with even more options comes up.



The dialog box is titled 'Street options'. It has a blue title bar with a close button. The main area is divided into several sections. On the left, 'House settings' has two radio buttons: 'Use current setting' and 'Saved settings'. Below 'Saved settings' are four rows of settings, each with a checkbox, a dropdown menu, and a percentage field. The first two rows are checked and set to 50%, the last two are unchecked and set to 0%. The first dropdown is 'CD3 A Thatch', the second is 'CD3 A Wooden', and the last two are 'Default'. To the right of these are three sections: 'House width' with 'Min' (30.00000) and 'Max' (30.00000) fields; 'House length' with 'Min' (50.00000) and 'Max' (60.00000) fields; and 'Distance between houses' with 'Min' (10.00000) and 'Max' (15.00000) fields. On the far right, 'Street' has 'Street width' (80.00000) and 'Distance from center of road' (15.00000) fields. Below these is a 'Gardens' section. At the bottom are 'Help', 'Cancel', and 'OK' buttons.

The **House settings** part defines which settings will be used in the random street. You can either use the current setting exclusively, or define which pre-saved settings to use. The above example chooses randomly between a *Thatched* and a *Wooden* building for each house on the street.

House width lets you set the minimum and maximum width of each building, and **House length** does the

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same for the other dimension. Note the minimum house length must be greater than the maximum house width. The values are in drawing units, meaning feet in our example map.

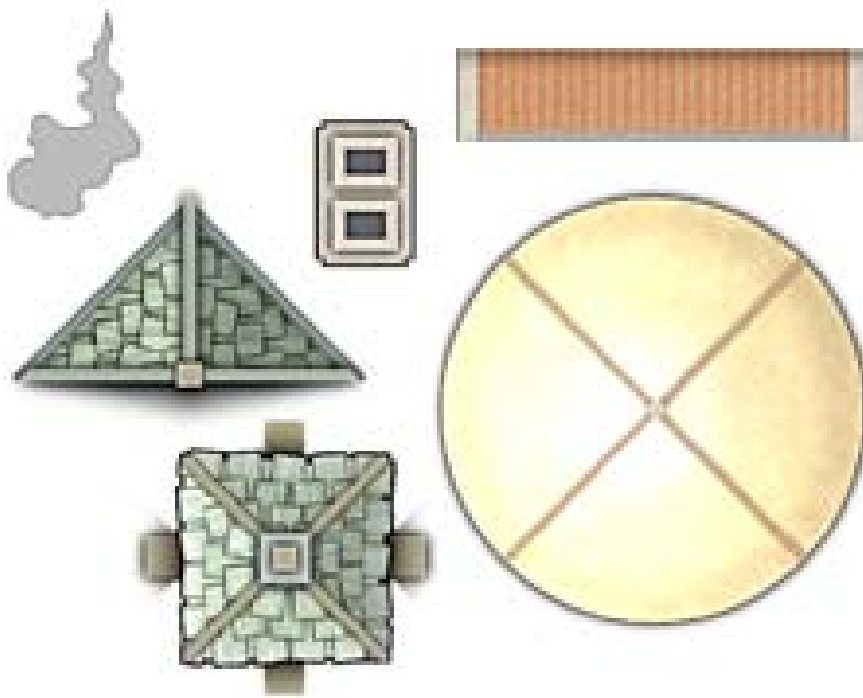
Distance between houses is just that, the distance two buildings will be apart.

The **Street** values define how far from the middle of the road the houses will be set.



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Enhancing Buildings

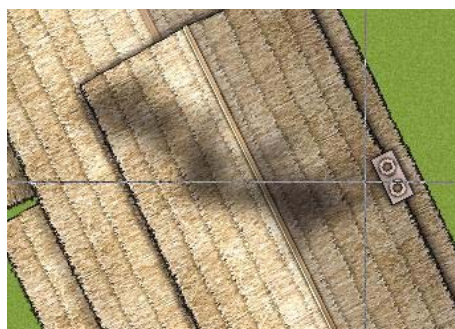


Adding Frills to Buildings

At the end of each catalog, CD3 has some symbols that are designed to make buildings more complex. These include conservatories, dormer windows, chimneys, smoke, roof holes, awnings, and others. These come in three varieties.

Adding a Normal Frill

1. Load the CD3A Thatched symbol catalog by clicking on the **Thatch**  icon on the catalog bar.
2. Zoom to a building on the map with a chimney.
3. Scroll down the symbol catalog and pick the **CD3A Smoke 1** symbol.
4. Scale it to your preferred size, rotate it to match your



Three Varieties

Normal frills, such as smoke, are just normal symbols. They don't align to buildings because they don't need to. Just place them as you would any CD3 symbol.

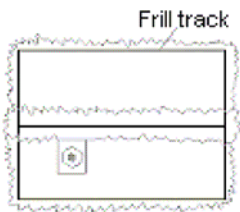
Aligning frills are extensions like conservatories, stairs or garages. They align to the edges of buildings. Just slide them around the building and place them when you are ready.

Offsetting frills are roof features like dormer windows and domes that align to the edge of the roof, and then offset inside.

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Non-Straight Edges

Some building types such as halfing dwellings or thatched houses have non-straight-edges. We've added a simple outline to these building types, just inside the main edge called a frill track. It is hidden by the solid roof, but frills will usually lock to it because it is below the jagged outline.



If you have difficulty placing frills, zoom out a little or hide the STRUCTURES (SHADING) and STRUCTURES (COLOR) layers to see the frill track.

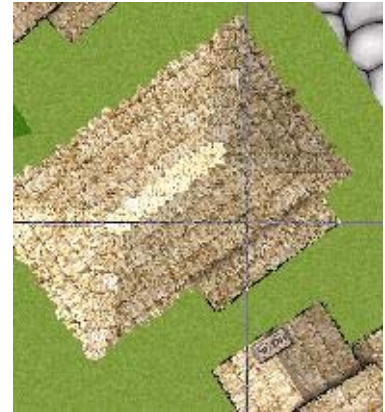
assumed wind direction and add it in on top of the building's chimney.

Adding an Aligning Frill

This example follows from the previous...

5. From the same catalog, pick the **CD3A Thatched Awning 1** symbol. Move it over the edge of a building.

Notice how it aligns to the outside as your cursor moves just outside the edge.



6. Place the awning.

Adding an Offsetting Symbol

Continued from the previous instructions...

7. Click the **CD3A Thatched Chimney 1** symbol.



8. Move it over the edge of a building.
Notice how it aligns to the house edge.

9. Place the chimney.

The prompt reads *Offset from place point [0"]*:. The frill symbol now moves perpendicular to the roof edge on a cursor.

10. Click a point or type in a distance.

11. Add another chimney, move it over the edge, place it and right-click to use the default distance (the same distance you used last time).

Frill symbols will even align to houses with **non-straight edges**.



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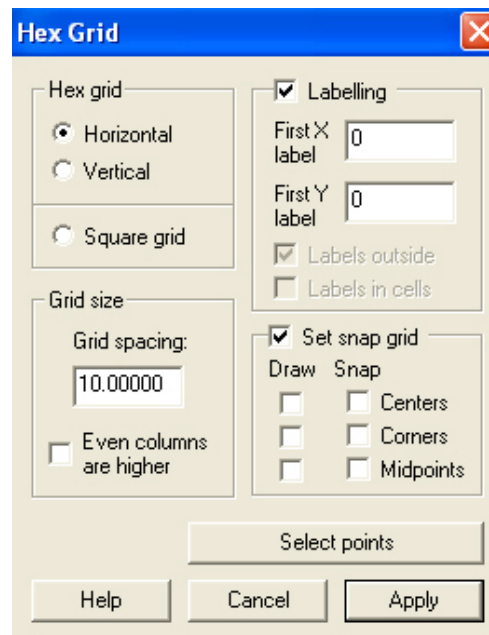
Adding Information

After you've added your buildings, drawn your streets and included some vegetation and other areas, CD3 is ready to help you find your way about the settlement you have created.

To Add a Grid Overlay

For CD3's indexing to work, you need to add a **grid overlay**.

1. Click **Text Properties** . Choose a suitable font - say **Arial** in our example.
2. Set the current color to black (0) by clicking on the color indicator on the Status Bar.
3. Click the **Grid**  button. The **Grid** dialog opens.
4. Choose a **suitable setting** for your grid overlay.
5. Click **Apply** to place the grid overlay.



Grid Overlay

A grid overlay is a grid of squares or hexes labeled along the axes or inside each cell. This acts as a reference, enabling you to locate buildings easily. When added, the grid appears in the current drawing color, gets placed on the HEX/QUARE GRID layer and the GRID sheet, and its text labels will be scaled to 2% of the template size.

Suitable Setting

In order to add an index of street names, CD3 needs a **Square grid**. The **Grid spacing** should be about 10% of the template's width. **Labelling** controls where the labels go and whether they use letters or numbers, or both.

You don't need to **Set Snap Grid**, as the template already has a suitable grid.

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Text Alignment

Hit the R, L and C keys during text placement to change the text's horizontal alignment to right, left and center respectively.

T, B and M (top, bottom and middle) do the same for vertical alignment.


Text Height and Angle

Hold down the SHIFT key (or SHIFT+CTRL) and move the mouse to change the text's angle while placing it.



Hold down the CTRL key and move the mouse to change the text height dynamically.

Adding Labels

At this point you might want to some street and building labels to the map.

- Through the adding of the grid overlay, the **Text Properties** should already have been set to something suitable. But change the current layer to TEXT (LABELS).
- Click the **Text**  button and label some buildings on the map, like the *Shrine*, the *Inn*, the *Farm* outside the village, etc.

You can adjust text alignment and text height and angle during placement.


- Click Text Properties  and set the properties to *Italic*.
- Set the current layer to TEXT (ROADS).
- Use **Text**  to add labels to some of the roads on the map, adjusting the text angle dynamically to align them along roads.





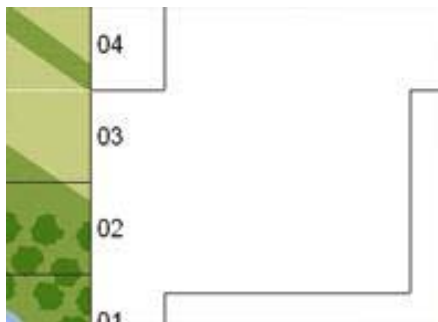
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Indexes

After you have added a grid overlay to act as a reference, you might want to create an index of buildings and streets on your map.

Create Index  adds an alphabetical index of text to your map. This consists of text labels that you have selected, arranged in alphabetical order with the Grid Overlay coordinates next to them. Clicking on the entries in the index zooms you to the appropriate place on the map.

11. Click **Text Properties**  and select a suitable **text height** (5' will be fine for the tutorial map).
12. Set the current layer, color and line style by clicking their indicators on the Status Bar.
13. Click **Create Index** , then select the text you wish to appear in the index (don't select the grid overlay).
14. The prompt reads **Column height [only one column] :.** You can now click two points to define the index's height. Right-clicking will put the whole index in one column, making it as large as necessary. Right-click for this small map.
15. An outline box appears next to the cursor, showing you the size the index will be. Click to place it on the map.
16. Move the mouse over the index. As you move over the text, you will see the cursor turn into a pointing finger, which indicates a link. Click on any entry to zoom to it.



Text Height

The height will depend on the amount of text in the drawing. Start with 1% of the height of the template and redo the command if it doesn't look right.

For a large amount of text you might need the index to be in several columns. Simply click two points to define the height of a column when prompted. CD3 will automatically create as many columns of this height as needed to fit your text.

Create Index Tips

- The index is useful both on paper and on the screen.

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Hidden

On the **City** menu click **Layers**, then **All BLDNGS with Color**, to see the color information.

The coordinates let you know where to go on a print; the automatic zooming lets you zoom to the text on the screen.

- When you update your map with new text, you will have to update the index too. Erase the current index and add a new one.
- The index is a group (see *Group* in the help index). If you want to move the text around within the index you must ungroup it first or **Unlock** groups, by pressing the **Lock/Unlock** button at the bottom of the screen.

Change House Layer

Because houses span several layers, changing the layer of a house using **Change Layer** or **Change Properties** will prevent certain CD3 features from working. Always click on the **City** menu and then click **Change House Layer** instead; this works on both symbols and buildings created with **House**.

Suitable Layer

Use one of the layers starting with **BLDNG**.



Add Demographic Information

Every building, whether it is a symbol or a house entity, has a solid silhouette. This silhouette is usually **hidden**. When you insert a symbol or house, the silhouette is given the current color. However, CD3 can automatically change this color according to which layer you have used for the house.

Changing Layers

If you haven't placed your buildings or houses on the correct layers to start with, you should use **Change**


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House Layer to set a suitable layer for them. See page 13 for details on the command.

For symbols, **Change House Layer** changes the symbol reference layer, leaving the symbol definition intact.

For houses, **Change House Layer** changes the layer of the solid-colored entity that is used for demographic information. The other layers are left intact.

Color Buildings

Color Buildings  is a way of adding demographic information to your maps. For example, you could place all the buildings on the BLDNG (RELIGIOUS) layer one color, and all those on the BLDNG (INN) layer another. All this information can be hidden and shown as needed.

The color is set according to the building's layer. You can also use it as a way of coloring everything in your drawing on a particular layer, not only houses.

The layers that are affected and the colors that are set are saved with the drawing; CD3's templates have a basic set of options saved with the drawing.

To Color your Buildings

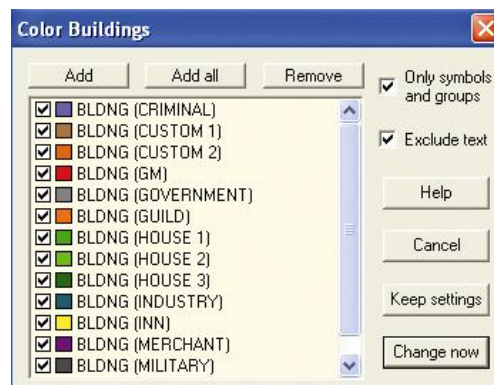
17. If your buildings are not on the correct layers use **Change House Layer** from the **City** menu to correct this.

18. Click **Color Buildings**



You can see a dialog box with various layers and colors.

These are the default settings.



Building

The buildings can be created with the various CD3 symbol catalogs, or with the **House** command.

Default Settings

To change the color of a particular layer, click the color box by the layer name.

Uncheck the box if you do not want it to be affected.

Select **Only symbols and groups** and **Exclude Text** if you would like the coloration to affect buildings alone.

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19. Click Change now.
20. To see the effects of your efforts, on the **City** menu click **Layers** then **All BLDNGS with Color**.

This hides all of the roof tops and lets you see what color the buildings are.

Layers

The **Layers** submenu on the **City** menu includes a number of options for speeding up redraws and hiding and showing demographic information.



How Color Buildings Works

CD3 buildings are drawn on a large number of layers. They include a solid filled silhouette of the building drawn in the current color and on the current layer. It is this silhouette that is affected when you use **Color Buildings**, and when you use **Change House Layer**.

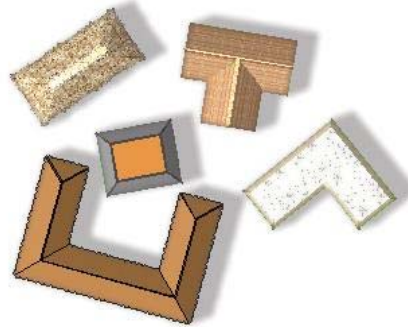
House symbols share some layers with buildings. However, the color silhouette is on a fixed layer - the **STRUCTURES (COLOR)** layer. This silhouette is also added to the drawing in the current color. However, it is the symbol's reference layer that is used by **Color Buildings** and **Change House Layer** to change the solid area's color and layer.

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House Settings

When you insert a building, it has a predefined look.

This look depends on the roof type, roof shape and the current House Settings. This chapter explains how you can edit and create your own House Settings.

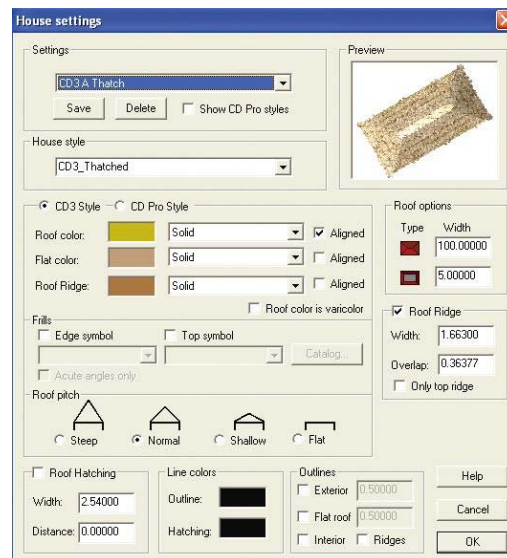


To Create a House Setting from Scratch

1. Right-click the **House** button and click **House Settings**.

You see the House Settings dialog box.

You can change colors in the dialog by clicking on the colored box and then selecting a new color. If you select color 31, this will appear as the current color when a house is inserted.



2. Pull down the **Settings** list and choose a style similar to the one you are creating. Select **Save** and type in a new name. If you upgraded to CD3 from CD Pro, check **Show CD Pro styles** to see the CD Pro settings in the list.



3. Pull down the **House Style** list and select a house style. For a straight-edged, ridged house



CD Pro Settings

The old house settings from CD Pro are still compatible with CD3. They do not make use of all new features, but they might still be useful for older-style maps or as starting points for your own settings.

House Colors

CD3 handles roof colors a little differently than CD Pro. Instead of giving several explicit colors, CD3 will shade the roof according to the **Global Sun** settings. This automatically creates different shades of the base color.


If you want to use CD Pro's method, check the **CD Pro Style** option.

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Aligned Fill Styles

Aligned fill styles are a relatively new feature of CC3, allowing a bitmap fill to be rotated dynamically.

While important for houses to look correct, this feature can slow down your drawing redraws.

You can shut this feature off temporarily in the **Display Speed Settings**  to increase your redraw speeds.

Roof Ridge

The roof ridge is a repeating shape that runs along the internal roof boundaries. You can exclude a roof ridge altogether. When created with the **Default** house style, roof ridges are filled rectangles. Other styles have different roof ridges.

this will be **Default**.

4. Choose your Roof, Flat and Roof Ridge colors and fill styles.

There is a wide variety of colors and fill styles available, you can choose from all fill styles defined in the current drawing template. Choose whether the fill styles should be **aligned** to the house edges.

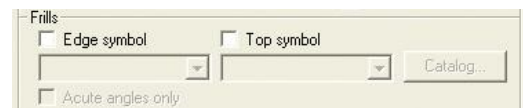
5. Under **Frills** you can choose frill symbols to go on your buildings corners and top ridge. This is very useful to match certain elaborate symbol styles.

Simply choose the

Catalog the fill

symbols are in, and

then the specific symbol that should go in the given location.



6. **Roof Pitch** defines how steep your roof is, which in turn has



an effect on shading. The steeper the roof, the more pronounced the shading effect will be.

7. If you want a roof ridge, select the **Roof Ridge** check box; otherwise uncheck it and don't worry about the other ridge options. If you only want a top ridge, select the **Only top ridge** box.

8. Enable **Roof Hatching** if you want it.

The style of roof hatching depends on the currently selected House Style, and not all House Styles have one defined. Use it sparingly on large maps, since it can add a significant overhead in a drawing.

9. **Outlines** and **Line Colors** lets you define the width and colors of any outlines you put into your style

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10. Click **Save** to store your House Setting.

The preview window always gives you an impression of your current settings, but you can also test your new House Setting at any time during this process. Select **Ok**, and then insert a house. Make changes, remembering to save each time.

House Styles

House styles are defined in files stored in the folder `symbols/cities/house styles/`. Take a look at any of these to get an idea of how to go about creating a new style and refer to **House Styles, creating** in the [help index](#) for full instructions.

Help Index

You can access CC3's online help through the **Help** menu entry. It contains topics on all individual commands and many over-arching concepts.

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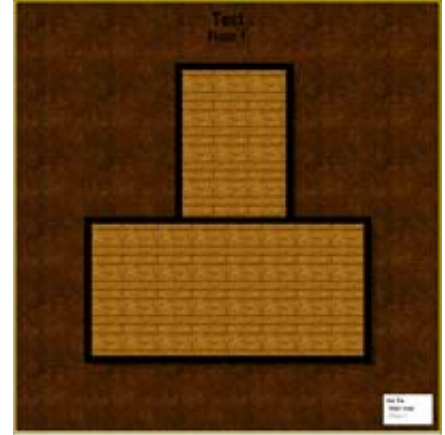
Floorplans

Detailing floorplans is not the province of **City Designer 3**. While it does include enough templates and drawing tools to create basic floorplans, tools in **Dungeon Designer 3**, **Symbol Set 2**, **Cosmographer**, and **Symbol Set 3** will give you a lot more options. Check the [ProFantasy website](#) for the latest updates to these add-ons, as they will include floorplan templates designed to work specifically with the CD3 Floorplan command.

Automatic Floorplans

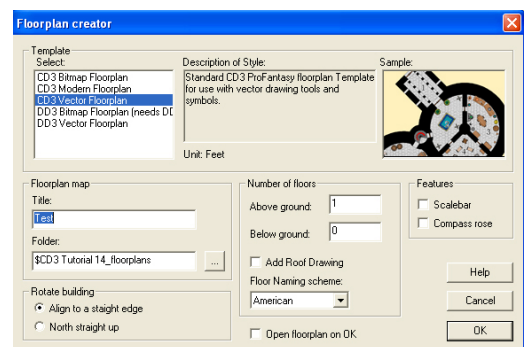
CD3 provides a powerful new feature that lets you easily create the basis for a **floorplan** from a city building: the **Floorplan** command.

While it won't fill in the interior details of a building with walls and furniture, it does create a linked series of maps (one for each floor) with the outline of the building on each.



It also automatically links the selected building on the city map to its floorplans.

1. Click the **Floorplan** button.
2. Select a building on your map with the pick cursor.

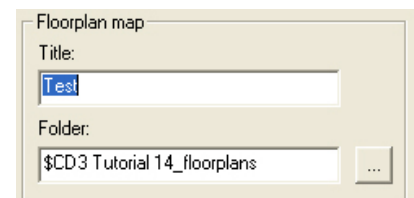


The **Floorplan creator** dialog comes up.

3. Choose a Template to use for the floorplan.

CD3 comes with five different templates, one of which works only if you have **Dungeon Designer 3** installed. Click on an entry in the list to see a sample and a text description.

4. Under **Floorplan map** type in a **Title** for the floorplan and either type or select a **Folder** to use.

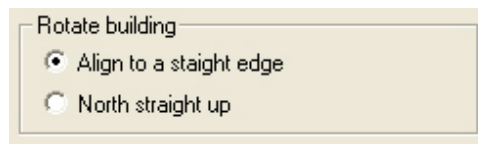


CD3 will save the new map files under this name and this folder.

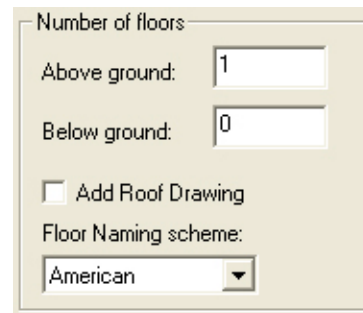
5. Select whether you want the building rotated to be

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aligned to a straight edge or whether you want it to stay north-aligned.



6. You can define any **Number of floors** for your map, both above ground (labeled “Floor”) and below ground (labeled “basement”).



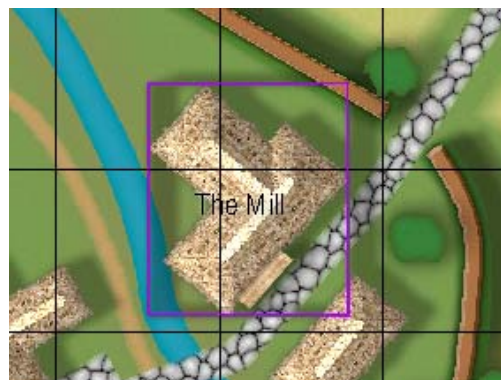
CD3 will create a map file for each floor and will link them all together through a list of hyperlinks.

If you want one of the drawings to show the roof of your building, select **Add Roof Drawing**.

Finally choose the **Floor Naming Scheme** to use.

7. If you want to work on the new floorplan right away, check **Open floorplan on OK**.
8. You can auto-include a **Compass rose** and a **Scalebar** in the new floorplan; just check the appropriate **Feature** option.
9. Finally, click **OK** to create the set of floorplans for the chosen building.

If you have chosen to open the floorplan directly, CD3 will prompt you to save the city map (which you should do) and then open the floorplan.



If not, CD3 will just add a **hyperlink** on the chosen building. You can open the floorplan by clicking on that link.

North-aligned

By convention maps are usually north-aligned, meaning the top border indicates north no matter how the actual building is aligned.

It can be more convenient to use an orthogonal (straight up and across) alignment of the walls, as it allows more convenient use of CC3's grid features.

Floor Naming Scheme

Building floors are labeled differently in North America and European countries.

While in **America** Floor 1 indicates the ground-level floor, it means the one above in **Britain**, and Ground Floor is the one at street level.

The **German** setting is the same as the **British** one, just in a different language.

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From the floorplan, you can return to the city map by clicking on the **Main Map** entry in the list of hyperlinks in the lower right corner. The other links open the respective floors of the building.



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Advanced Features and Further Reading

If you want to learn more about CD3, look up the following underlined phrases in the Help Index available from the Help menu. Also check out www.profantasy.com for downloadable manuals and tutorials.

- For an overview of the city creation process, see Creating a City.
- To make your own buildings and enhancements, see Creating City Symbols and Frills.
- To create new house styles, see House Styles, creating.
- To read more about how CD3 uses layers, see City Designer layers.

The Tome of Ultimate Mapping

ProFantasy's big book on mapping with the CC3 software and its add-ons – the [Tome of Ultimate Mapping](#) – contains a large chapter on city mapping, starting from general principles to specific City Designer considerations.

The Cartographer's Annual

ProFantasy's subscription product [The Cartographer's Annual](#) brings new styles, symbols and tools each month and regularly covers city mapping topics.